

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-25 are currently pending. The present amendment adds Claims 18-25.

In the outstanding Office Action, Claims 1-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lisinski et al. (U.S. Patent No. 5,260,866, herein "Lisinski") in view of Thackston (U.S. Patent No. 6,295,513).

First, Applicant wishes to thank Examiner Bahta for the courtesy of an interview granted to Applicant's representatives on February 3, 2005, at which time the outstanding issues in this case were discussed.

In the interview, Applicant argued that the Office Action did not appear to assert that all features of *amended* Claim 1 were taught by the prior art. In particular, Applicant argued that "said definition being stored in a database and comprising an expression of rules and constraints" is not taught by the Lisinski patent. Applicant further argued that contrary to an assertion of the Office Action, "the industrial product is an aircraft" is not taught by the Thackston patent. To that effect, Applicant and Examiner discussed Claim 2, the extent to which it limits the scope to an aircraft, and possible alternate wordings that might be clearer. Applicant and Examiner further discussed the possibility of new claims directed to a "fleet of vehicles." The Examiner noted that further search would need to be conducted, but that she would reconsider the claims upon receipt of a formal response. Arguments similar to those presented in the interview are included below. Finally, Applicant appreciatively acknowledges the Examiner's suggestion that a telephonic conversation prior to the next Office Action might be helpful in identifying mutually acceptable language, should the Examiner feel certain adjustments need to be made, and avoid unnecessary additional steps in the prosecution of this application. Accordingly, Applicant invites Examiner Bahta to contact

the undersigned at her convenience upon examination of this Amendment. The undersigned can be reached at (703) 413-6577.

In response to the rejection of Claims 1-17, Applicant respectfully requests reconsideration of the rejection and traverses the rejection as discussed next.

Briefly recapitulating, Applicant's invention, as recited in Claim 1, is directed to a method to structure and manage a configuration of an industrial product, taking into account selected options, including: describing a set of technical objects, each technical object either representing a product function or describing an implementation method for making a product configuration, the set of technical objects representing manufacturing options of the industrial product; updating a definition of each technical object and of its inter-relations with other of the technical objects in the product configuration, *the definition* being stored in a database and *comprising an expression of rules and constraints*; and interactively and dynamically using the database during the configuration of the product.

The Office Action asserts that the Lisinski patent teaches most of the limitations of Claims 1-17 and relies on the Thackston patent to cure the deficiencies of the Lisinski patent. Applicant respectfully disagrees.

Specifically, the Office Action asserts at page 2 that the Lisinski patent, directed to a multi-level system generating multiple custom work orders for the manufacture of an item and lower-level configurable items comprising the end item, teaches "updating a database for clarifying a definition of each technical object and its inter-relations with other objects in the configuration by an expression of rules and constraints (Fig. 2, Fig. 6, Fig. 8)." Applicant respectfully submits that Claim 1 includes a specific relation between the rules, the definition, and the database. Specifically, Claim 1 recites "updating a definition of each technical object and of its inter-relations with other of the technical objects in the product configuration, said definition being stored in a database and comprising an expression of rules and constraints."

Lisinski's Figures 2, 6, and 8 do not teach these claimed features. In particular, the Lisinski patent fails to teach or suggest the *rules and constraints* of independent Claim 1 included in the definition of a technical object and of its inter-relations with other of the technical objects. Indeed, the Lisinski's rules are not part of the definition of technical objects or of their inter-relation because they define tasks performed by the system during the course of, among other things, obtaining option values and generating custom work orders.¹ Therefore, in the Lisinski system, a rule is a task and not part of a definition.

The Office Action asserts at page 2 that the Lisinski patent teaches that “the industrial product is considered as a set of functions in a functional product” and supports this assertion with Fig. 25 of the Lisinski patent. Applicant respectfully disagrees. The Lisinski patent teaches “a screen processing step 160 as shown in Fig. 25 as part of the knowledge acquisition process.”² As such, whereas the word function does appear in Fig. 25, it only does so in the context of the knowledge acquisition system. In other words, Applicant respectfully submits that Lisinski's “functions” do not pertain to the industrial product itself, and even less to a consideration of the product “as a set of functions in a functional product,” as recited in Claim 5, but rather to a processing on a screen during the knowledge acquisition process.

The Office Action further asserts at page 2 that the Lisinski patent teaches that “the contract management module works in connected or disconnected mode” and supports this assertion with Fig. 21 of the Lisinski patent. Applicant respectfully disagrees and submits that the legends of Fig. 21 (and the corresponding explanatory passage in the Lisinski patent) do not teach or suggest a contract module, in particular, nor any kind of module working “in connected or disconnected mode,” as recited in Claim 6. Specifically, the Lisinski patent states with respect to Fig. 21 that “[g]enerating the custom work orders includes, among other

¹ Lisinski, col. 7 line 66 – col. 8, line 2.

² Lisinski, col. 30, lines 43-45.

things, dynamically generating component and labor requirements for the configured items.”³

Applicant respectfully submits that a system that generates work orders is not a contract management module. The Lisinski patent itself defines the work order as “a type of recipe that specifies component requirements”⁴ and not as a contract management module. Further, there does not appear to be an indication of a work order “in connected or disconnected mode.”

The Office Action further asserts at page 3 that the Lisinski patent teaches a contract manager that can “start a configuration checking process at any time” and supports this assertion with Figs. 5 and 6 of the Lisinski patent. Applicant respectfully disagrees. For example, Fig. 6 of the Lisinski patent states “if configured item flag is ‘yes’” in step 117 and “if item is front end configurable” in step 118. Accordingly, the process cannot start “at any time,” as recited in Claim 9, since for example, the load options array (step 117) cannot start at a time for which the configured item flag is not ‘yes’ or when the item is not “front end configurable.”

Therefore, Applicant respectfully submits that the Lisinski patent neither teaches nor suggests at least the above-mentioned features of Claims 1, 5, 6, and 9, in addition to the features asserted at page 3 of the Office Action not to be taught by the Lisinski patent.

Turning to the Thackston patent, directed to a comprehensive and integrated computer-based system and method for undertaking an engineering design and development, the Office Action asserts at page 3 that the Thackston patent teaches that “the industrial product is an aircraft” and supports this assertion with column 1, lines 55-58, of the Thackston patent. Applicant respectfully disagrees. The cited passage does mention an aircraft, but only as something that interacts with the industrial product, not as the industrial product itself. Specifically, the Thackston patent teaches “an improved sonobuoy for

³ Lisinski, col. 30, lines 15-17.

⁴ Lisinski, col. 1, lines 20-21.

receiving and transmitting to a surveiling aircraft acoustic data from the ocean,”⁵ and not an aircraft as recited in Claims 2, 4, 13, 19, and 25.

The Office Action further asserts at page 3 that the Thackston patent teaches “a knowledge, a contract and [a] mass management module” and supports this assertion with Fig. 9 of the Thackston patent. Applicant respectfully disagrees and submits that Fig. 9 does not teach or suggest a “mass management module,” as recited in Claims 3, 4, and 16.

The Office Action further asserts at page 4 that the Thackston patent teaches “the knowledge management module is configured to manage technical objects each representing an aircraft, the contract management module is configured to manage fleet configurations of aircraft” and supports this assertion with col. 13, lines 43-50, col. 14, lines 31-41, and Figs. 12-22 of the Thackston patent. Applicant respectfully disagrees. The Thackston patent is concerned with a “sonobuoy,” not an aircraft. Therefore, Applicant respectfully submits that the above features of Claim 4, defined with respect to an aircraft, or a fleet thereof, do not fit within the context of the Thackston patent and are neither taught nor suggested by the Thackston patent.

Therefore, even if the combination of the Lisinski and Thackston patents is assumed to be proper, the combination fails to teach every element of the claimed invention. Specifically, the combination fails to teach the “rules and constraints” of Claim 1, the “industrial product is considered as a set of functions in a functional product” of Claim 5, the “contract management module works in connected or disconnected mode” of Claim 6, the “at any time” feature of Claim 9, the “aircrafts” feature of Claims 2, 4, 13, 19, and 25, the “mass management” feature of Claims 3, 4, and 16, and the features of Claim 4 defined with respect

⁵ Thackston, col. 1, lines 38-40.

to an aircraft or a fleet thereof. Accordingly, Applicant respectfully traverses, and requests reconsideration of, this rejection based on these patents.⁶

In order to vary the scope of protection recited in the claims, Applicant added Claims 18-25. Claim 18 is similar to Claim 1 except that it incorporates the "fleet" feature of Claim 4. Further, Claim 18 specifies a fleet of vehicles, which vehicles are not as broad as "industrial products," as discussed during the interview. Claims 19-21 specifies the types of vehicles the fleet may comprise and find non-limiting support in the originally filed application, for example at page 5, lines 3-7. Claim 22 recites features similar to Claim 7. Claim 23 and 24 recites additional features related to the managing of a fleet and find non-limiting support in the originally filed application, for example at page 15, lines 27-30. Finally, Claim 25 is added in response to the discussion Applicant and Examiner had regarding Claim 2. Claim 25 clearly specifies that the industrial product is an aircraft. Similarly, Claim 19 clearly specifies that the fleet comprises aircrafts. Accordingly, the new claims find support in the originally filed application and are not believed to raise a question of new matter or new issues.⁷

Applicant notes that the Office Action does not acknowledge receipt of certified copies of the priority documents. Applicant respectfully submits that the certified copies of the priority documents were submitted with the allowed parent application (Application Serial No. 10/189,260).⁸

⁶ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

⁷ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

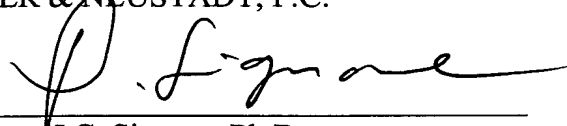
⁸ See MPEP stating that "[w]here the benefit of a foreign filing date based on a foreign application is claimed is a later filed application (i.e., continuation, continuation-in-part, division) or in a reissue application and a certified copy of the foreign application as filed, has been filed in a parent or related application, it is not necessary to file an additional copy in the later application. "

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Reply to Office Action of December 27, 2004

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-25 is earnestly solicited.

Respectfully submitted,

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